

AMENDMENTS TO THE CLAIMS

Pursuant to 37 CFR 1.121, presented below are pending claims 1-23 having status identifiers.

Please amend claims 1, 7, 9, 14, 16 and 22 as follows. Please cancel claims 8, 15 and 23.

No new matter has been added.

We claim:

1. (Currently amended) A spindle motor comprising:
a rotatable component defining a journal gap and relatively rotatable with a stationary component;
a recirculation path formed through one of the stationary component and the rotatable component for recirculating fluid through the journal gap; and
a first thrust surface extending substantially radially, formed on one of the stationary component and the rotatable component, and formed between the recirculation path and the journal gap, wherein a capillary seal is formed adjacent to the recirculation path; and
a second thrust surface extending substantially radially, formed on one of the rotatable component and the stationary component at an axial end of the rotatable component and substantially situated axially distal from the first thrust surface, wherein the first thrust surface generates a first axial force in the same direction as a second axial force generated by the second thrust surface.
2. (Original) The spindle motor as in claim 1, further comprising an asymmetric grooved pattern forming a journal bearing formed on at least one of the adjacent surfaces of the stationary component and the rotatable component, adjacent to the journal gap.
3. (Original) The spindle motor as in claim 1, further comprising a grooved pattern consisting of a symmetric grooved pattern forming a journal bearing formed on at least one of the adjacent surfaces of the stationary component and the rotatable component, adjacent to the journal gap.

4. (Previously presented) The spindle motor as in claim 3, wherein axial span between a first journal bearing and a second journal bearing is maximized, and wherein axial length of the journal remains unchanged.
5. (Previously presented) The spindle motor as in claim 3, wherein axial length of the journal is minimized.
6. (Original) The spindle motor as in claim 1, wherein the first thrust surface comprises a grooved surface that generates an offset pressure through the journal gap and the recirculation path to avoid subambient pressure throughout the journal, and wherein the first thrust surface is biased for creating a pressure gradient and substantially circulating the fluid about the journal, and purging air from the fluid.
7. (Currently amended) The spindle motor as in claim 1, further comprising a stator, affixed to the stationary component, for interacting with a magnet affixed to the rotatable component and driving the rotatable component, wherein ~~the first thrust surface is positioned to generate a first axial force and the second axial force are positioned to that opposes~~ oppose a second ~~third~~ axial force generated by interaction of the stator and the magnet.
8. (Canceled)
9. (Currently amended) A spindle motor for incorporation into a disc drive storage system comprising:
- a rotatable component defining a journal gap and relatively rotatable with a stationary component;
 - a data storage disc attached to the rotatable component;
 - a recirculation path formed through one of the stationary component and the rotatable component for recirculating fluid through the journal gap; ~~and~~
 - a first thrust surface extending substantially radially, formed on one of the stationary component and the rotatable component, and formed between the recirculation path and the journal gap, wherein a capillary seal is formed adjacent to the recirculation path; and

a second thrust surface extending substantially radially, formed on one of the rotatable component and the stationary component at an axial end of the rotatable component and substantially situated axially distal from the first thrust surface, wherein the first thrust surface generates a first axial force in the same direction as a second axial force generated by the second thrust surface.

10. (Original) The spindle motor as in claim 9, further comprising a grooved pattern consisting of a symmetric grooved pattern forming a journal bearing formed on at least one of the adjacent surfaces of the stationary component and the rotatable component, adjacent to the journal gap.

11. (Previously presented) The spindle motor as in claim 10, wherein axial span between a first journal bearing and a second journal bearing is maximized, and wherein axial length of the journal remains unchanged.

12. (Previously presented) The spindle motor as in claim 10, wherein axial length of the journal is minimized.

13. (Original) The spindle motor as in claim 9, wherein the first thrust surface comprises a grooved surface that generates an offset pressure through the journal gap and the recirculation path to avoid subambient pressure throughout the journal, and wherein the first thrust surface is biased for creating a pressure gradient and substantially circulating the fluid about the journal, and purging air from the fluid.

14. (Currently amended) The spindle motor as in claim 9, further comprising a stator, affixed to the stationary component, for interacting with a magnet affixed to the rotatable component and driving the rotatable component, wherein ~~the first thrust surface is positioned to generate a first axial force and the second axial force are positioned to that opposes~~ oppose a second third axial force generated by interaction of the stator and the magnet.

15. (Canceled)

16. (Currently amended) A method comprising:

defining a journal gap between a relatively rotatable component and a stationary component;

forming a recirculation path through one of the stationary component and the rotatable component for recirculating fluid through the journal gap; and

forming a first thrust surface between the recirculation path and the journal gap, extending substantially radially on one of the stationary component and the rotatable component, wherein a capillary seal is formed adjacent to the recirculation path; and

forming a second thrust surface to extend substantially radially on one of the rotatable component and the stationary component at an axial end of the rotatable component and substantially situated axially distal from the first thrust surface, wherein the first thrust surface generates a first axial force in the same direction as a second axial force generated by the second thrust surface.

17. (Original) The method as in claim 16, further comprising forming a journal bearing having an asymmetric grooved pattern on at least one of the adjacent surfaces of the stationary component and the rotatable component, adjacent to the journal gap.

18. (Original) The method as in claim 16, further comprising forming a journal bearing having a grooved pattern consisting of a symmetric grooved pattern on at least one of the adjacent surfaces of the stationary component and the rotatable component, adjacent to the journal gap.

19. (Previously presented) The method as in claim 18, further comprising maximizing axial span between a first journal bearing and a second journal bearing, wherein axial length of the journal is unchanged.

20. (Previously presented) The method as in claim 18, further comprising minimizing axial length of the journal.

21. (Original) The method as in claim 16, further comprising generating an offset pressure through the journal gap and the recirculation path to avoid subambient pressure throughout the journal, utilizing a grooved first thrust surface, and biasing the first thrust surface to create a

pressure gradient and to substantially circulate the fluid about the journal and purge air from the fluid.

22. (Currently amended) The method as in claim 16, further comprising positioning ~~the first thrust surface to generate a~~ the first axial force and the second axial force ~~that opposes to oppose~~ a ~~second~~ third axial force generated by interaction of a stator and a magnet, wherein the stator is affixed to the stationary component and the magnet is affixed to the rotatable component for driving the rotatable component.

23. (Canceled)